

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims.

Claims 1-97 (Cancelled)

98. (Previously Presented) An isolated polynucleotide encoding a polypeptide comprising an amino acid sequence at least 95% identical to amino acids 1 to 488 of SEQ ID NO:42;

wherein % identity is determined with parameters that calculate % identity over the full length of amino acids 1 to 488 of SEQ ID NO:42 and that allow gaps of up to 5% of the total number of residues in amino acids 1 to 488 of SEQ ID NO:42;

wherein said polypeptide forms a GABAA receptor complex with α- and β-GABAA receptor subunits; and

wherein said complex produces GABA-activated chloride currents.

99. (Previously Presented) The isolated polynucleotide of claim 98, comprising a nucleotide sequence encoding amino acids 1 to 488 of SEQ ID NO:42.

100. (Previously Presented) The isolated polynucleotide of claim 99, comprising nucleotides 95 to 1558 of SEQ ID NO:41.

101. (Previously Presented) An isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide comprising an amino acid sequence at least 95% identical to amino acids -17 to 488 of SEQ ID NO:42;

wherein % identity is determined with parameters that calculate % identity over the full length of amino acids -17 to 488 of SEQ ID NO:42 and that allow gaps of up to 5% of the total number of residues in amino acids -17 to 488 of SEQ ID NO:42;

wherein said polypeptide forms a GABAA receptor complex with α- and β-GABAA receptor subunits; and

wherein said complex produces GABA-activated chloride currents.

102. (Previously Presented) The isolated polynucleotide of claim 101, comprising a nucleotide sequence encoding amino acids -17 to 488 of SEQ ID NO:42.

103. (Previously Presented) The isolated polynucleotide of claim 102, comprising nucleotides 44 to 1558 of SEQ ID NO:41.

104. (Previously Presented) An isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide comprising an amino acid sequence at least 95% identical to amino acids -18 to 488 of SEQ ID NO:42;

wherein % identity is determined with parameters that calculate % identity over the full length of amino acids -18 to 488 of SEQ ID NO:42 and that allow gaps of up to 5% of the total number of residues in amino acids -18 to 488 of SEQ ID NO:42;

wherein said polypeptide forms a GABA_A receptor complex with α- and β-GABA_A receptor subunits; and

wherein said complex produces GABA-activated chloride currents.

105. (Previously Presented) The isolated polynucleotide of claim 104, comprising a nucleotide sequence encoding amino acids -18 to 488 of SEQ ID NO:42.

106. (Previously Presented) The isolated polynucleotide of claim 105, comprising nucleotides 41 to 1558 of SEQ ID NO:41.

107. (Currently Amended) The isolated polynucleotide of claim 9598, further comprising a heterologous polynucleotide.

108. (Previously Presented) The isolated polynucleotide of claim 107, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

109. (Currently Amended) A method of producing a vector that comprises inserting the isolated polynucleotide of claim 9598 into a vector.

110. (Currently Amended) A vector comprising the isolated polynucleotide of claim 9598.

111. (Previously Presented) The vector of claim 110, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

112. (Currently Amended) A host cell comprising the isolated polynucleotide of claim 9598.

113. (Previously Presented) The host cell of claim 112, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

114. (Previously Presented) A method of producing a polypeptide that comprises culturing the host cell of claim 113 under conditions such that said polypeptide is expressed, and recovering said polypeptide.

Claims 115-116 (Cancelled)

117. (Previously Presented) An isolated polynucleotide encoding a polypeptide comprising an amino acid sequence at least 95% identical to the complete amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 209642;
wherein % identity is determined with parameters that calculate % identity over the full length of the complete amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 209642 and that allow gaps of up to 5% of the total number of residues of the complete amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 209642;
wherein said polypeptide forms a GABAA receptor complex with α- and β-GABAA receptor subunits; and
wherein said complex produces GABA-activated chloride currents.

118. (Previously Presented) The isolated polynucleotide of claim 117, wherein the polypeptide comprises the complete amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 209642.

119. (Currently Amended) The isolated polynucleotide of claim ~~115~~117, further comprising a heterologous polynucleotide.

120. (Previously Presented) The isolated polynucleotide of claim 119, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

121. (Currently Amended) A method of producing a vector that comprises inserting the isolated polynucleotide of claim ~~115~~117 into a vector.

122. (Currently Amended) A vector comprising the isolated polynucleotide of claim ~~115~~117.

123. (Previously Presented) The vector of claim 122, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

124. (Currently Amended) A host cell comprising the isolated polynucleotide of claim ~~115~~117.

125. (Previously Presented) The host cell of claim 124, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

126. (Previously Presented) A method of producing a polypeptide that comprises culturing the host cell of claim 125 under conditions such that said polypeptide is expressed, and recovering said polypeptide.

Claims 127-135 (Cancelled)

136. (Previously Presented) An isolated polynucleotide comprising 60 contiguous nucleotides of the coding region of SEQ ID NO:41.

137. (Previously Presented) The isolated polynucleotide of claim 136, wherein said sequence comprises 70 contiguous nucleotides of SEQ ID NO:41.

138. (Previously Presented) The isolated polynucleotide of claim 137, wherein said sequence comprises 100 contiguous nucleotides of SEQ ID NO:41.

139. (Previously Presented) The isolated polynucleotide of claim 138, wherein said sequence comprises 200 contiguous nucleotides of SEQ ID NO:41.

140. (Previously Presented) The isolated polynucleotide of claim 136, further comprising a heterologous polynucleotide.

141. (Previously Presented) The isolated polynucleotide of claim 140, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

142. (Previously Presented) A method of producing a vector that comprises inserting the isolated polynucleotide of claim 136 into a vector.

143. (Previously Presented) A vector comprising the isolated polynucleotide of claim 136.

144. (Previously Presented) The vector of claim 143, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

145. (Currently Amended) ~~A~~An isolated host cell comprising the isolated polynucleotide of claim 136.

146. (Previously Presented) The host cell of claim 145, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

147. (Previously Presented) A method of producing a polypeptide that comprises culturing the host cell of claim 146 under conditions such that said polypeptide is expressed, and recovering said polypeptide.